Examination Period 3: 2016/17

SLS300217N

Module Title Integrated Medical Genetics
Level Six
Time Allowed Two hours and thirty minutes

Instructions to students:
• Enter your student number not your name on all answer books.
• Answer two out of four questions.
• All questions are equally weighted.
• Begin each question in a separate answer book; label each answer book clearly with the number of the question you are answering.
• Neither books nor notes may be taken into the examination.

No. of Pages 2
No. of Questions 4
Answer **two** of the following questions:

1. Discuss possible reasons why telomere shortening might predispose to age-related disease.

2. Discuss using relevant examples how variation within the cytochrome P450 (CYP) genes can influence the effectiveness of drug therapies.

3. Discuss ways in which genetic variation might contribute to the obesity phenotype.

4. Discuss how you would design and conduct an experiment to establish whether genetic variation is important in the predisposition to multiple sclerosis (MS). In constructing your answer assume that you have unlimited access to any resources that you would need. You should comment on any difficulties that you might expect to encounter and how you might overcome them.